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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,019	12/15/2003	Gary Lynn Hanley	CGT-120	4149

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EXAMINER	
OMGBA, ESSAMA	
ART UNIT	PAPER NUMBER
3726	

NOTIFICATION DATE	DELIVERY MODE
08/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/736,019	HANLEY, GARY LYNN	
	Examiner	Art Unit	
	Essama Omgba	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/27/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-7, 28-30 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Esser et al. (US 2003/0148710) in view of Sangeeta et al. (US patent 5,796,265).

With regards to claims 1-7, Esser et al. discloses a process of removing aluminide-containing material or a thermal barrier coating from a metallic substrate (paragraphs [0093] and [0094]) using a blasting process as non-abrasive process, see paragraphs [0033], [0043] and [0092]-[0098], wherein the blasting process could be carried at room temperature (non-degraded coating), see paragraph [0098]. Although Esser et al. does not specifically disclose the non-abrasive blasting process being one that uses an air jet, however Sangeeta et al. discloses a process for removing an aluminide-containing material from a metallic substrate surface (col. 1, lines 11-19 and col. 2, lines 26-28), the method comprising directing an air jet at the aluminide-containing material on the substrate surface of the component, the jet comprising non-abrasive particulate media such as glass beads, the average particle size being less than 500 microns, the air jet being directed at the aluminide-containing material at a pressure less than about 40 psi sufficient to remove the aluminide-containing material but insufficient to damage the substrate surface, see column 5, lines 54-67, column 7, lines 53-67 and column 8, lines 1-4. Therefore it would have been obvious to one of

ordinary skill in the art at the time the invention was made, to have use the non-abrasive blasting process taught by Sangeeta et al., in the process of Esser et al., in order to remove thermal barrier coatings without damaging the underlying material.

For claims 28-30, Applicant should note that such bond coatings are conventional in the art.

Regarding claim 37, Applicant should note that the process of Esser et al./Sangeeta et al. could be used for "non-degraded" thermal barrier ceramic coatings, meaning those who have not been put to use. The blasting process of Esser et al. could also be carried at room temperature (non-pretreated coating), see paragraph [0098].

3. Claims 8-27, 31-36, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Esser et al. and Sangeeta et al.

With regards to claim 8-27, Applicant, at pages 1-3 of the specification to be known as AAPA, discloses known methods of removing thermal barrier coatings from turbine blades as well as from laser drilled cooling holes in turbine hot section components. Known methods include waterjet blasting to remove barrier coating from components during manufacturing and repair, including air-cooled components, which creates wear and erosion of the underlying substrate. AAPA does not disclose directing an air jet at the thermal barrier coating on the substrate coating, the jet containing non-abrasive particulate media and being emitted from a nozzle at a low pressure insufficient to damage the substrate surface. However Esser et al. teaches a non-abrasive blasting process to remove thermal barrier coatings, see paragraphs [0033],

[0043] and [0092]-[0098], wherein the blasting process could be carried at room temperature ("non-degraded" coating), see paragraph [0098]. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a non-abrasive blasting process to remove thermal barrier coatings in the method of AAPA, in light of the teachings of Esser et al., in order to remove the thermal barrier coating without damaging the underlying substrate. Although Esser et al. does not specifically disclose the non-abrasive blasting process being one that uses an air jet, however Sangeeta et al. discloses a process for removing an aluminide-containing material from a metallic substrate surface (col. 1, lines 11-19 and col. 2, lines 26-28), the method comprising directing an air jet at the aluminide-containing material on the substrate surface of the component, the jet comprising non-abrasive particulate media such as glass beads, the average particle size being less than 500 microns, the air jet being directed at the aluminide-containing material at a pressure less than about 40 psi sufficient to remove the aluminide-containing material but insufficient to damage the substrate surface, see column 5, lines 54-67, column 7, lines 53-67 and column 8, lines 1-4. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have use the non-abrasive blasting process taught by Sangeeta et al. in the process of AAPA/Esser et al., in order to remove thermal barrier coatings without damaging the underlying material.

For claims 31-36, Applicant should note that such bond coatings are conventional in the art.

Regarding claims 38 and 39, Applicant should note that the process of Esser et al./Sangeeta et al. could be used for "non-degraded" thermal barrier ceramic coatings, meaning those who have not been put to use. The blasting process of Esser et al. could also be carried at room temperature (non-pretreated coating), see paragraph [0098].

Response to Arguments

4. Applicant's arguments filed may 4, 2009 have been fully considered but they are not persuasive.

In response to Applicant's argument that neither US 2003/0148710 nor US 5,976,265 teaches processes directed to removing thermal barrier ceramic coatings, the examiner respectfully disagrees. As outlined in the above rejections, US 2003/0148710 at paragraphs [0093] and [0094] clearly teaches a process for removing thermal barrier ceramic coatings.

In response to Applicant's argument that new claims 37, 38 and 39 are distinct from the cited publications because both of the cited publications teach steps directed to altering or degrading an aluminum-containing coating or a MCrAlY coating before a blasting process is subsequently applied to it, the examiner submits that claims 37, 38 and 39 do not require that the coating be "non-altered" before the blasting process. As pointed out by Applicant in the arguments filed May 4, 2009, the term "non-degraded' as used therein is to mean that "a thermal barrier coating (TBC) that is newly of freshly applied to a component". Therefore "non-degraded' as used by applicant does not refer to any possible "pre-treatment" before the blasting process. Furthermore, the

transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > *Mars Inc. v. H.J. Heinz Co.,* 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004). "The transition comprising' in a method claim indicates that the claim is open-ended and allows for additional steps."; *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997). See MPEP § 2111.03.

In view of the above remarks, the examiner maintains that a *prima facie* case of obviousness has been established in the instant application.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (571) 272-4532. The examiner can normally be reached on M-F 9-6:30, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Essama Omgba/
Primary Examiner, Art Unit 3726

eo
August 15, 2009